

COMMITTEE ON WAYS AND MEANS
U.S. HOUSE OF REPRESENTATIVES

TRADE AGREEMENT AUTHORITY
AND TARIFF LEVELS

PREPARED FOR THE USE OF THE
COMMITTEE ON WAYS AND MEANS
IN CONNECTION WITH HEARINGS
ON THE SUBJECT OF
FOREIGN TRADE AND TARIFFS
BY THE
STAFF OF THE
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GENERAL STATEMENT

This paper describes the authority to modify rates of duty granted to the President by the Congress under the trade agreements legislation. As indicated in the tables on the value of imports and duties collected, the average tariff level (as measured by the ratio of duties collected to the value of imports) has declined from just under 20 percent for the years 1932-33 to 5.7 percent in 1972 in terms of total imports and from over 50 percent to 8.6 percent in terms of dutiable imports for the same years.

Although no recent studies have been made of the extent of tariff reductions under the trade agreements program, staff analyses in the Tariff Commission in the early 1950's indicated at that time about one-half of the decline in the ratio of duties collected to the value of dutiable imports could be attributed to reductions in rates of duty pursuant to trade agreements and about one-half due to other factors, primarily the effects of the rise in the general level of prices on the incidence of specific rates of duty (e.g., cents per pound).

In addition, a discussion and statistics on comparisons of tariff levels are included.

In general, these materials indicate that the United States' tariff levels have decreased significantly over the past 40 years, with very few increases in rates of duty taking place, either as a result of Acts of Congress or duty increases negotiated by the President pursuant to trade agreement authority. Indeed, although trade agreement authority has always permitted the President to increase rates of duty, within specified limits, such authority has been used very infrequently, and for the most part to restore rates of duty previously reduced pursuant to a trade agreement.

PRESIDENTIAL AUTHORITY TO CHANGE IMPORT DUTIES GRANTED UNDER TRADE AGREEMENTS LEGISLATION SINCE 1934

TRADE AGREEMENTS ACT OF 1934

The Trade Agreements Act of 1934 (P.L. 316) was approved June 12, 1934. The President's authority to enter into trade agreements under the Act was initially limited to 3 years and provided that every agreement concluded under the Act should be subject to termination at the end of not more than 3 years after coming into effect. Authority to increase or reduce duties was limited to 50 percent of the "existing rates". It was also provided that no article could be transferred between the free and the dutiable lists.

TRADE AGREEMENT EXTENSION ACTS OF 1937, 1940, 1943, 1945, 1948, AND 1949

Congress extended the 1934 Act in its original form for 3 years in both 1937 and 1940. With some changes it was further extended in 1943 for 2 years, in 1945 for 3 years, in 1948 for 1 year, and in 1949 for 3 years retroactive to June 12, 1948 (the 1948 extension act being repealed). A principal change in 1945 authorized the President to increase or reduce, by 50 percent, the rates of duty existing on January 1, 1945.

Under the 1948 extension, the President was required, before concluding a trade agreement, to submit to the Tariff Commission the list of commodities on which concessions were to be considered by the United States. The Commission was required to report to the President the lowest rate of duty ("peril-point") which could be fixed on each dutiable item without causing or threatening serious injury to the domestic industry concerned. The 1949 extension repealed these requirements.

A further provision of the 1949 extension removed the 50 percent limitation on rate changes insofar as such limitation applied to increases in rates of duty on goods imported from Cuba.

TRADE AGREEMENTS EXTENSION ACT OF 1951

The Trade Agreements Extension Act of 1951 extended the President's authority to enter into trade agreements for a period of 2 years from June 12, 1951. The most important difference between the 1951 extension and the 1949 extension were the "peril point" and "escape clause" provisions. The 1951 extension incorporated the peril-point provision in substantially the same form as it appeared in the 1948 extension.

The 1951 act made inclusion of an "escape clause" mandatory in all trade agreements concluded after its passage, and, as soon as practicable, in all trade agreements then currently in force. Such escape clause provided for suspension or modification of any concession if the article on which the concession was granted enters, as a result in whole or in part of the existing tariff reflecting the concession, in such increased quantities as to cause or threaten serious injury to the domestic industry producing like or directly competitive articles.

Prior to the 1951 act, the procedure for administering trade agreement escape clauses was provided for by three Executive Orders, E.O. 9832, February 25, 1947; E.O. 10004, October 5, 1948; and E.O. 10082, October 5, 1949.

The 1951 extension also directed the President to suspend the application of any tariff concession contained in any trade agreement to imports from the Soviet Union and from any Communist-dominated or Communist-controlled countries or areas. The 1951 act also prohibited imports of certain furs and skins which are the products of the Soviet Union or of Communist China.

Furthermore, it was first declared in the 1951 act that enactment should not be construed to indicate the approval or disapproval by the Congress of the General Agreement on Tariffs and Trade.

TRADE AGREEMENTS EXTENSION ACTS OF 1953 AND 1954

The statutory provisions of the 1951 act were extended for a period of 1 year in both 1953 and 1954. In addition, the 1954 act specified that no action could be taken to reduce the duty on any article if the President found such reduction would threaten domestic production needed for projected national defense requirements.

TRADE AGREEMENTS EXTENSION ACT OF 1955

The Trade Agreements Extension Act of 1955 extended the President's authority to enter into trade agreements from June 12, 1955 until the close of June 30, 1958. This extension increased the President's authority to reduce import duties pursuant to trade-agreement negotiations by two alternative formulas. The first formula permitted reductions of not more than 15 percent of the rates existing on January 1, 1955. Reduction stages under this formula could not exceed 5 percent of the January 1, 1955 rates annually, beginning July 1, 1955, and no part of any reduction could become effective after June 30, 1958.

The second formula permitted the reduction of rates that were greater than 50 percent ad valorem (ad val.) (or the equivalent thereof) to 50 percent ad val. (or the equivalent thereof). As in the first formula, not more than one-third of the total reduction permissible was allowed to become effective annually.

In contrast to the first formula, however, the restriction on reductions becoming effective after June 30, 1958, did not apply.

The 1955 extension also provided that the President could—within carefully specified limits—exceed the duty-reduction limitations set forth in the extension act if he determined that this would simplify the duty rate computations involved.

In addition, the 1955 act provided that if the President found that

any article was being imported in such quantities as to threaten to impair the national security, he should take such action necessary to adjust the imports of such article to a level that will not threaten to impair the national security.

TRADE AGREEMENTS EXTENSION ACT OF 1958

The Trade Agreements Extension Act of 1958 extended the President's authority to enter into trade agreements for 4 years, from the close of June 30, 1958, until the close of June 30, 1962. This extension provided for three alternative formulas for reduction of the rates applicable on July 1, 1958. The first formula provided for a maximum reduction of 20 percent of the rates. The second formula provided for a reduction by 2 percentage points, or for specific and compound rates, the equivalent of 2 percentage points, except that no duty could be entirely removed. Under the third formula, any duty rate could be reduced to 50 percent ad val. or the equivalent of 50 percent ad val.

Regardless of the formula used, any reduction was to be effected in not more than four stages. The separate stages had to be at least 1 year apart, with the last stage effective not later than 3 years after the first. In no stage could the reduction exceed 10 percent of the base rate of duty under the first formula, 1 percentage point under the second formula, or one-third of the total amount of the reduction under the third formula.

Concessions for duty reductions could be negotiated at any time during the 4 years the extension was in effect, but no part of any such decrease could become effective later than June 30, 1966.

The 1958 extension authorized the President to increase by as much as 50 percent any rate in effect on July 1, 1934. It was also provided that any such specific duty rate could be converted to its ad val. equivalent based on imports in 1934, and that an ad val. duty rate not more than 50 percent above such ad val. equivalent could be imposed.

The 1958 extension act continued the prohibition against transferring any articles between the free and dutiable lists, as first established in the Trade Agreements Act of 1934, but authorized the President, in carrying out the escape clause provisions of the trade-agreements legislation, to impose a temporary duty of not more than 50 percent ad val. on duty free articles.

TRADE EXPANSION ACT OF 1962

The Trade Expansion Act of 1962 granted the President authority to enter into trade agreements for the 5-year period from July 1, 1962, to June 30, 1967. The act provided for the President to proclaim modification or continuance of any existing duty or other import restriction, the continuance of existing duty-free or excise treatment, or to proclaim additional import restrictions.

Rate reduction under the act were in general limited to not more than 50 percent below the July 1, 1962 rates. These reductions were to be staged so that the total reduction in effect at any time would not exceed that equal to reductions based on five annual installments of equal magnitude. No reduction could become effective on any article whose

duty rate was reduced in a prior agreement until 1 year after the effective date of its final reduction under such agreement. With certain qualifications these reductions could exceed to a small extent the 50 percent reduction limit or the staging requirements in order to avoid rates containing complex fractions or decimals, or to simplify calculation of duties.

In addition, the President could reduce certain duties without limit. This authority was not included in any previous trade agreement legislation and included articles with rates of 5 percent ad val. (or ad val. equivalent) or less; articles in any trade agreement with the European Economic Community (EEC) meeting certain requirements and that the United States and the EEC together accounted for at least 80 percent of the aggregated world export value, and also articles referred to in Agricultural Handbook No. 143, U.S. Department of Agriculture, September 1959. Under certain circumstances, rates of duty on tropical agricultural or forestry commodities could be eliminated.

Also authorized was the increasing of any duty rate to (or imposing of) a rate not more than 50 percent above the rates existing July 1, 1934.

Another provision of the 1962 act which replaced the "peril-point" clause of earlier trade agreements legislation required the President to submit to the Tariff Commission lists of articles to be the subject of trade agreements for determination of the probable economic effect on industries producing like or directly competitive articles of the contemplated action under such trade agreement. The President could not offer trade agreement concessions on such articles until he either received the Commission's advice or until 6 months after the Commission received the listing, whichever occurred first.

Several provisions of the 1962 act directed the President to reserve various articles from trade-agreement negotiations.

It was mandatory to reserve articles for which an action was in effect under the national-security or escape-clause provisions of the 1962 act or comparable provisions of previous legislation for the duration that such action remained in effect.

Articles which were to be reserved from negotiations during the entire 5-year period the 1962 act was in effect included those for which the Tariff Commission in earlier escape-clause investigation had found by majority vote was being imported in such increased quantity as to cause or threaten serious injury to a domestic industry, and for which no escape-clause action was in effect provided that: (a) such article was included in a listing furnished the Tariff Commission but had not been included in a previous listing, and (b) the Tariff Commission, upon request of the industry concerned made not later than 60 days after publication of such listing, found and advised the President that economic conditions in the industry had not substantially improved since the reporting of its earlier injury finding.

The act also directed the President to reserve articles from application of trade-agreement concessions when necessary to safeguard national security and to reserve such other articles which he determined to be appropriate.

Another portion of the national security chapter provided that the President should remove or prevent the application of any trade-agreement concessions to products of any country or area under Communist domination or control. However, it was further provided in an amendment to the 1962 act, that under certain circumstances, the President could extend the benefits of trade agreement concessions to products of such countries or areas still receiving these benefits on December 16, 1963.

The 1962 act included provision for tariff assistance to domestic industries which was comparable, in general, to escape-clause provisions contained in previous trade-agreement legislation. Under this provision the President could proclaim an increase in duty on articles causing injury of not more than 50 percent above the rate existing on July 1, 1934 (or if no such rate existed, an increase of not more than 50 percent above the rate existing at the time of the proclamation), or if the article was duty free, he could impose a duty of not more than 50 percent ad val.

In lieu of such action, the President could negotiate international agreements limiting imports of the articles causing injury.

Other provisions of the act allowed the President, for purposes of conservation of fishery resources, to increase the rate of duty on any fish in any form to a rate not more than 50 percent above the rate existing on July 1, 1934; and authorized the President to counter unreasonable and unjustifiable foreign import restrictions by, among other ways, not applying trade-agreements rates of duty to products of the foreign country involved.

Furthermore, the act provides that nothing in the act shall be construed to affect the provisions of Section 22 of the Agricultural Adjustment Act, or to apply to any import restriction previously or later imposed under such section.

The 1962 act did not continue the provision, that was first included in the 1951 act, that enactment should not be construed to indicate Congressional approval or disapproval of the General Agreement on Tariffs and Trade.

Chronology of Trade Agreements Authority, 1934-67

Act	Effective period	Duty reduction: Limitations on authority	Duty increases: Limitation on authority
Public Law 316, June 12, 1934.	June 12, 1934 to June 12, 1937.	50 percent of rate existing on June 12, 1934.	50 percent of rate existing on June 12, 1934.
No transfer of articles between free and dutiable lists allowed.			
Pub. Res. No. 10, Mar. 1, 1940.	June 12, 1937 to June 12, 1940.	50 percent of rate existing on June 12, 1934.	50 percent of rate existing on June 12, 1934.
Act extended in original form.			
Pub. Res. No. 61, Apr. 12, 1940.	June 12, 1940 to June 12, 1943.	50 percent of rate existing on June 12, 1934.	50 percent of rate existing on June 12, 1934.
Act extended in original form.			
Public Law 66, July 7, 1943.	June 12, 1943 to June 12, 1945.	50 percent of rate existing on June 12, 1934.	50 percent of rate existing on June 12, 1934.
Public Law 130, July 5, 1945.	June 12, 1945 to June 12, 1948.	50 percent of rate existing on Jan. 1, 1945.	50 percent of rate existing on Jan. 1, 1945.
Date of base rate for reductions changed. Escape clause first instituted by Executive Order, Feb. 25, 1947.			
Public Law 792, July 26, 1948.	June 12, 1948 to June 30, 1949.	50 percent of rate existing on Jan. 1, 1945.	50 percent of rate existing on Jan. 1, 1945.
"Peril-point" clause 1st included. (See text for explanation.)			
Public Law 307, Sept. 26, 1949.	June 12, 1948 to June 12, 1951.	50 percent of rate existing on Jan. 1, 1945.	50 percent of rate existing on Jan. 1, 1945.
Effective date retroactive to June 12, 1948. Extension of 1948 (including "peril-point" clause) repealed. Rate increase limit removed on articles from Cuba.			
Public Law 50, June 16, 1951.	June 12, 1951 to June 12, 1953.	50 percent of rate existing on Jan. 1, 1945.	50 percent of rate existing on Jan. 1, 1945.
"Peril-point" clause reinstituted. Inclusion of escape clause made mandatory in this and later acts. Soviet Union and other Communist countries or areas denied effect of concessions. Import of certain furs and skins from the U.S.S.R. or Communist China prohibited.			

Public Law 215, Aug. 7, June 12, 1953 to June 12, 1954. 50 percent of rate existing on Jan. 1, 1945. 50 percent of rate existing on Jan. 1, 1945.

Public Law 464, July 1, 1954.- June 12, 1954 to June 12, 1955. 50 percent of rate existing on Jan. 1, 1945. 50 percent of rate existing on Jan. 1, 1945.

No reductions allowed on articles which would threaten domestic production needed for national defense.

Public Law 86, June 21, 1955.- June 12, 1955 to June 30, 1958. (1) By 15 percent of rate existing on Jan. 1, 1955; or to 50 percent ad val. (or equivalent). 50 percent of rate existing on Jan. 1, 1945.

Deductions under 15 percent method could not exceed 5 percent annually or any part become effective after June 30, 1958. Reductions to 50 percent rate could not exceed $\frac{1}{3}$ of total reduction annually. Reductions could exceed the limits (only as specified) to simplify rate computation. Imports threatening national security were to be adjusted to safe levels.

Public Law 85-686, Aug. 20, July 1, 1958 to June 30, 1962. (1) By 20 percent of the rate existing on July 1, 1958 or (2) by 2 percentage points (or equivalent); or (3) to 50 percent ad val. (or equivalent). 50 percent of rate existing on July 1, 1934.

Reductions to be effected in not more than 4 annual stages, with the last effective not later than 3 years after the 1st. Reductions in any stage could not exceed 10 percent of the base rate under method (1); 1 percentage point under (2); or $\frac{1}{3}$ of the total reduction under (3); under (2), no duty could be entirely removed. No reduction part could become effective after June 30, 1966. For rate increases, conversion allowed of 1934 specific rate to 1934 ad val. equivalent in order to impose an ad val. rate not more than 50 percent above the converted rate. Authorized imposition of temporary duty of not more than 50 percent ad val. on duty-free articles under articles under escape clause action.

Chronology of Trade Agreements Authority, 1934-67—Continued

Act	Effective period	Duty reduction: Limitations on authority	Duty increases: Limitation on authority
Public Law 87-794, Oct. 11, 1962.	July 1, 1962 to June 30, 1967.	50 percent of rate existing on July 1, 1962; or elimination of (1) duties not more than 5 percent ad val. (or equivalent); (2) duties on articles included in negotiations with the EEC in which either the United States and the EEC accounted for at least 80 percent of world export value or which were certain agricultural articles; (3) certain tropical agricultural or forestry commodities.	50 percent of rate existing on July 1, 1934.

Reduction stages could not exceed a total equivalent to reductions based on 5 annual installments of equal magnitude, unless (with limits) it would simplify rate calculations. Reductions on rates previously reduced could not take effect until 1 year after the final stage of such prior reduction became effective. Duties could be reduced without limit on; articles which had duty rates of or equivalent to not more than 5 percent ad val.; articles meeting certain requirements which were included in negotiations with the EEC; and, under certain circumstances, articles considered tropical agricultural or forestry commodities. Provisions similar to the peril-point and escape clauses of prior legislation were included. Articles reserved from negotiations for certain periods included those subject to national security or escape clause action; under certain circumstances, those previously subject to escape-clause action; those necessary to safeguard national security; and those the President determined appropriate. Communist countries or areas were denied concession benefits, but, certain limited provisions were given to allow such benefits to such countries or areas still receiving benefits on Dec. 16, 1963. If deemed necessary, July 1, 1934, rates on fish could be increased 50 percent for purposes of conservation of fishery resources. Concession benefits could be denied to counter unreasonable and unjustifiable foreign import restrictions. Actions under sec. 22 of the Agricultural Adjustment Act, including prior or future action, were not to be affected by the 1962 act.

Source: Compiled from U.S. Tariff Commission publications, *Operation of the Trade Agreements Program*, and from the *Trade Expansion Act of 1962*.

COMPARISON OF TARIFF LEVELS AMONG MAJOR INDUSTRIAL COUNTRIES: A REVIEW OF THE PROBLEMS OF COMPARISON AND OF RECENT DATA ON TARIFF AVERAGES

[This paper was prepared by the Congressional Research Service of the Library of Congress at the request of the staff of the Committee on Ways and Means.]

There is no simple, straightforward method for comparing tariff levels among countries. Even a direct comparison of duties on individual items may be ambiguous, due to differences in product specification, methods of valuation, preferences, etc. This ambiguity is compounded when we attempt to compare tariff levels for groups of items, or to calculate a single figure which can meaningfully represent a whole tariff structure. Tariff level comparisons must proceed from an understanding of these ambiguities. They must include several kinds of tariff averages, with full cognizance of the limitations on the meaning of each average. This paper will initially address itself to some of the pitfalls of tariff level comparisons, and summarize some of the results of a major comparative tariff study undertaken by the GATT secretariat.

I. CUSTOMS VALUATION

The first problem of comparing tariffs concerns customs valuation. An *ad valorem* tariff is levied on the value of an imported item. There are, however, several ways for determining this value. A major study of this problem, with recommendations for adoption of a uniform system, has been published by the U.S. Tariff Commission.¹ In considering very broad tariff level comparisons we may ignore most aspects of valuation practices. But one variation in customs valuation must be considered. It is important to know whether tariffs being compared are levied on a f.o.b. (free on board) or a c.i.f. (cost, insurance, freight) basis.

Neither f.o.b. nor c.i.f. are unambiguous concepts, but the main distinction between them can be clearly stated. The former decrees that the value of an import on which a duty is levied shall be the value of that good at the point of exportation, exclusive of subsequent costs incurred in transporting it to the point of importation. According to the c.i.f. method, the value of an import shall be its value at the point of importation, inclusive of insurance, freight, and transportation costs.

The Tariff Commission supports the f.o.b. method, though neither method is obviously superior, and good arguments can be made on

¹ U.S. Tariff Commission, *Customs Valuation*. Published as a committee print of the Senate Finance Committee, 93d Congress, 1st Session, March 14, 1973.

behalf of each.² It is desirable to have trade statistics based on both methods of valuation, as each method is appropriate to different kinds of economic analyses. A comparison of tariff levels should, ideally, be based on the same method of valuation, either f.o.b. or c.i.f. Two countries may have the same nominal tariff rate, but the country with c.i.f. valuation will exact a tariff payment higher than that demanded by the country with the f.o.b. valuation. Direct comparison of nominal tariff levels will suffer from this distortion unless the nominal rates are adjusted to reflect the actual tariff burden.

In order to transform U.S. trade statistics from an f.o.b. to a c.i.f. basis, the International Monetary Fund adopted the rule of adding 10 percent to the value of U.S. imports. This estimate of the *average* cost of freight and insurance was generally supported by past studies of the U.S. Tariff Commission. The Office for Special Trade Negotiations reports that a sample of imports in 1971 revealed an upward adjustment of about 6 percent would be required to transform the f.o.b. values into c.i.f. values. Any direct comparison of U.S. nominal tariff levels with those of c.i.f. countries implicitly assumes, therefore, that the duties actually paid on U.S. imports are around 6 to 10 percent higher than they really are, that is, by the margin by which c.i.f. valuation exceeds f.o.b. To render *average* U.S. nominal tariffs directly comparable to the tariffs of c.i.f. countries, the U.S. tariffs should be reduced by about 5-10 percent.

There are, however, some qualifications to this adjustment rule. It is required only when the U.S. valuation is substantially f.o.b. It could not be invoked for those tariffs levied on the "American Selling Price."³ And it would be justified only for average tariff levels calculated for very broad groups of imports. The 5-10 percent upward adjustment required to switch from f.o.b. to c.i.f. valuation is the average additional cost of freight and insurance for all imports. This average permits no conclusions about the degree of adjustment required for individual items, or for narrowly defined groups.

The GATT comparative tariff data reported below are not adjusted to remove the distortion inherent in a comparison of c.i.f. with f.o.b. tariff levels. (The tariffs of the U.S. and of Canada are levied on an f.o.b. basis, in general, while those of the other countries are generally on a c.i.f. basis.) The magnitude of the distortion is not serious enough to warrant the considerable effort required to achieve greater precision, at least not for the purpose of comparing entire tariff structures. It could, however, assume greater significance in the comparison of tariffs on items whose transportation costs substantially exceed the 5-10 percent average differential between f.o.b. and c.i.f. valuations.

II. WEIGHTING AND AVERAGING

A more serious problem in comparing tariffs arises with the selection of an appropriate weighting method for calculating tariff averages. We are concerned not with a comparison of tariffs on individual

² For a summary of these arguments, see pgs. 137-143 of *Customs Valuation*. At present the U.S. utilizes the f.o.b. method, with the variation that the dutiable value is taken to be the "principal market" value within the country of export, not at the port of export. In practice the "principal market" value means the cost of the good at the factory, exclusive of transportation costs to the port of export.

³ *Customs Valuation* reports that duties in 1969 were levied according to the A.S.P. on less than 1 percent of imports. (p. 71)

items, but with the comparison of tariff structures for large groups of imports. It is necessary to calculate an "average" tariff to represent the entire tariff structure. Even if the calculation of "the" average poses no problem, to use just one figure for interpreting the significance of a whole array of figures is inherently ambiguous. The dispersion of the figures about the average, the value of the highest and lowest—such considerations may invalidate the use of "the" average for different kinds of comparisons. This is a quite familiar problem, however, as it pertains to the analysis of all forms of data. The problem peculiar to the analysis of trade data arises at an earlier stage, namely, the choice of methods for calculating various kinds of averages.

The first choice is whether or not to weight the tariffs. If each tariff within a tariff structure is of equal importance, "the" average may be calculated in the straightforward manner of summing all tariffs and dividing by the number of tariffs. But we generally want to accord greater importance to some tariffs; namely, those which have greater impact on trade. Tariffs which fall on items of great importance to a country's trade should obviously have greater weight in the calculation of "the" average than tariffs on items of trivial importance. We must, therefore, select a factor by which to weight the tariffs. The value of imports under each tariff is the obvious candidate.

Weighting by value of imports raises further problems. The ideal procedure would be to weight each tariff by the value of goods that would have been imported in the absence of any tariff. Weighting by the value of goods actually imported is potentially subject to distortions as severe as those connected with non-weighting. The more effective tariffs are in curtailing trade, the *less* weight they will have in the calculation of the average. Weighting by the value of actual imports could produce the absurd conclusion that, if the tariffs were high enough to prohibit all trade, the average tariff would be zero! Since the purpose of tariffs is protection against imports, we need a tariff average that conveys some notion of the actual restrictive impact. This requires at least an estimate of the amount of trade that would have occurred without tariffs. Such estimates are usually difficult to make, especially when tariffs have been in place for some time. None of the averages reported below are weighted by the trade that might have flowed.

III. THE GATT STUDY

Faced with the necessity of using actual trade data, the only recourse is to calculate several averages, each designed to correct the most pronounced distortions of the other. The most ambitious and comprehensive effort at computing and comparing tariff averages has been undertaken by the GATT secretariat. The President's Office for Special Trade Negotiations has furnished the Economics Division of the Congressional Research Service with one of the documents resulting from this study. According to that Office, the data in this document⁴ reflect the tariffs in effect after completion of the Kennedy Round, but they are weighted by 1967 trade figures. Averages weighted by more recent

⁴ The document is entitled *Basic Documentation for the Tariff Study, Supplementary Tables*, GATT, Geneva, July 1970.

trade figures have reportedly been compiled by GATT, but, according to the Office for Special Trade Negotiations, they are restricted to the member governments and are not yet to be released to Congress.

The GATT study contains four kinds of tariff averages. They are calculated for each item in a comprehensive list of import categories, and for very broad groupings of categories. Averages for the broadest groupings, defined as "all industrial products," "finished manufactures," "semimanufacturers," and "raw materials" are calculated on the basis of all items within the group, and on the basis of dutiable items only. The results are:

TARIFFS

[Definitions and explanations of averages are found on pp. 12-14 in text]

All industrial products	On all items (average)				On dutiable items			
	No. 1	No. 2	No. 3	No. 4	No. 1	No. 2	No. 3	No. 4
World.....	8.7	6.7	5.3	6.5	10.5	9.4	9.6	9.2
EEC.....	6.9	6.0	3.9	6.0	7.5	8.0	8.0	8.1
United States.....	10.9	7.1	6.1	6.2	11.9	9.0	8.5	8.2
Canada.....	9.2	6.4	6.4	6.9	15.2	13.0	14.1	12.6
Japan.....	10.1	9.7	5.7	9.6	11.1	11.5	10.7	11.6
Finished manufactures:								
World.....	10.1	8.6	7.7	8.6	12.0	10.7	10.4	10.3
EEC.....	7.8	8.7	8.0	8.6	8.0	9.0	8.3	9.0
United States.....	12.8	8.1	8.4	7.2	13.4	9.0	9.2	8.1
Canada.....	10.6	9.2	6.6	9.9	16.1	15.3	14.3	14.7
Japan.....	11.4	12.0	12.0	12.5	11.7	12.2	12.3	12.8
Semimanufactures:								
World.....	7.9	7.1	5.4	6.6	9.3	9.2	9.0	8.9
EEC.....	6.7	6.2	4.7	6.3	7.1	7.8	8.5	8.1
United States.....	9.5	8.3	5.1	6.9	10.4	10.4	8.3	9.5
Canada.....	7.5	6.2	9.4	7.4	13.3	11.3	14.0	11.4
Japan.....	9.5	9.3	6.2	8.2	10.4	10.5	7.6	9.9
Raw materials:								
World.....	2.5	2.5	1.4	2.1	6.3	4.0	6.2	3.7
EEC.....	1.6	.6	.3	.4	3.9	1.3	3.4	1.4
United States.....	4.5	3.8	2.7	3.3	8.4	4.7	5.7	4.5
Canada.....	3.4	1.2	.4	.3	11.0	1.7	6.4	1.2
Japan.....	2.5	5.5	3.2	5.2	8.0	9.5	11.2	8.4

Note: The GATT document also includes averages for Sweden, Denmark, Norway, Finland, Switzerland, Austria, and the United Kingdom. Denmark and the United Kingdom are now harmonizing their tariffs with those of the EEC.

Tariff averages calculated on the basis of all imported items will always be lower than those calculated only on the basis of dutiable items, as long as some imports are duty free. While tariff averages on all times are the best reflection of the tariff structure as a whole, since recognition should be given to zero tariffs, it is necessary to compare them to the averages on dutiable items only. A large discrepancy can call attention to the possibility of a significant degree of tariff protection despite rather low averages on all imported items. Effective protection often requires tariffs which exceed some critical level, below which a tariff may be a nuisance to foreign producers, may somewhat reduce their profits, but will not really prevent them from penetrating the domestic market. If low tariffs of this nature are abolished, while tariffs high enough to afford effective protection are retained, the average tariff on all imports may be very low, but the degree of meaningful protection, as reflected in the averages on dutiable items, can still be rather high.

These averages are not easy to interpret. Average No. 1 is simply the unweighted average: each tariff is of equal importance in its calculation. Goods imported at low tariffs, as are many raw materials, tend

to fall under a few comprehensive tariffs, whereas high duty goods are covered by a larger number of tariffs, each covering an import category of much finer definition. The summation of all tariffs will likely contain a large number of high duty tariffs, even though the bulk of trade may flow under the lower tariffs. If this is the case, average No. 1 will be significantly inflated. It could be expected to be the highest of the averages.

Average No. 3, on the other hand, could be expected to contain a strong downward bias. It is calculated by weighting each tariff by the value of imports entering under it. High tariffs which effectively reduce imports do not, therefore, receive a weight proportionate to their importance. One could expect average No. 3 to be the lowest average.

These general expectations are not, however, uniformly satisfied by the data. When they are, the difference between average No. 1 and No. 3 is often not striking. Averages calculated for each of twenty-three industrial product categories also refute the general expectation: in 40 percent of the cases, average No. 3 exceeds average No. 1. This can occur only when a disproportionately large amount of trade is flowing under tariffs which are higher than the average, unweighted tariff for that product category. In these cases, larger trade is associated with higher tariffs. Analysis of these cases, as reported in an addendum to the Basic Documentation, produces two general explanations. A tendency for average No. 3 to exceed average No. 1 is associated with labor-intensive products, and with the most specialized or technologically advanced products. These are complementary, not contradictory generalizations. In the first instance, it appears that the industrialized countries are at an increasing disadvantage in the production of labor-intensive goods, so that the most labor-intensive items within a general category of products will be imported in disproportionately large amounts despite duties on them higher than the duties on other items in the category. Despite higher tariffs, these goods can still be price-competitive. The second explanation refers to goods that do not compete on the basis of price with equivalent products. Because of their exceptionally high quality, or very advanced international specialization in their production, they do not face much competition for equivalent products of similar quality or special refinement. These are goods of which there are only a few suppliers in the world, or, if the general good is widely produced, a few particular suppliers dominate the high quality, specialized variations on the general good. High tariffs will not necessarily impede their importation.

Averages No. 2 and 4 were calculated to moderate the distortions normally characteristic of averages No. 1 and 3. They employ a two-stage weighting procedure. The GATT study utilizes the BTN (Brussels Tariff Nomenclature) system for classifying traded commodities. The BTN system consists of a list of tariff "headings", each of which groups together a set of individual tariff "lines." In the first stage, an average is calculated for the tariff lines within a BTN heading, producing an average tariff for each BTN heading. For average No. 2 there is no weighting of the tariff lines. It corresponds, at this stage, to average No. 1. For average No. 4 each tariff line is weighted by the value of the nation's imports under that line. It corresponds, at this stage, to average No. 3. In the final stage an average for the entire group is calculated from the averages for the BTN headings within the group.

Both averages No. 2 and 4 employ, in this final stage, a common weighting scheme. The tariffs for each BTN heading are weighted by the value of world imports under that heading. Weighting by world imports in the second stage should, for average No. 2, tend to remove the distortion of no weighting in the first stage. Weighting by world imports should, for average No. 4, tend to remove the distortion of weighting by national imports in the first stage. As a pair they should represent a better measurement of "the" tariff level than averages No. 1 and 3.

Weighting by world imports is not, however, without its own distorting effect. The rationale for averages No. 2 and 4 is that the distortions of the second stage offset the distortions of the first stage. But some skepticism concerning such beneficial offsetting is warranted. Weighting by world imports implicitly assumes that, in the absence of trade barriers, the composition of each nation's imports would roughly conform to the composition of world trade. Were that true, this method would be the best practical procedure. But it cannot be true, for it would contradict the basic rationale of trade; namely, that different countries have comparative advantages in the production of different goods, so all can benefit by each exporting those goods it produces most efficiently, and importing those it can only produce at a disadvantage. With international specialization, the composition of each country's imports would be markedly different from the composition of world imports. Weighting by world trade is distorting because it places undue emphasis on tariffs covering goods which other nations import in large amounts. The virtue of weighting by world trade is to restore a needed emphasis on those tariffs which are genuinely protective.

IV. INTERPRETATION

Since no tariff average is very satisfactory, the only recourse is to examine several of them, keeping in mind their limitations, and to venture generalizations about comparative tariff levels only when a consistent pattern can be discerned. These figures can support several generalizations. In the industrialized world, tariffs on raw materials are, as one would expect, very low. (The difference between tariff levels on manufactured goods and raw materials assumes considerable significance when one attempts to compare "nominal" with "effective" tariff levels, as discussed below.) Tariffs on finished manufactures tend to be higher than those on semimanufactures. Among countries, Canada's tariff structure is not, as a whole, exceptional, but it clearly emerges as the highest structure when only dutiable items are considered. Japan has the highest tariff level on all finished manufactures, but is second to Canada on dutiable finished manufactures. Despite her lack of domestic raw materials, Japan has high tariffs on dutiable raw materials, though the discrepancy between dutiable and all items indicates that a large portion of Japanese raw material imports are duty free. The U.S. appears to have somewhat higher tariffs than the EEC, though some of this difference would disappear if the comparison were adjusted to remove the f.o.b.-c.i.f. distortion. This would leave the U.S. at approximate equality with the EEC in industrial goods, though U.S. tariffs on raw materials would remain higher.

Tariff averages of this nature can provide a useful overview, and point to any gross differences among countries. One must stress, how-

ever, their limited validity. Aside from the difficulties of calculating a meaningful average, any average can conceal the impact of very high tariffs on a few strategic items. The larger the dispersion of very high and very low tariffs around an average, the less reliable that average as a meaningful interpretation of the tariff structure. In addition to pure averages, therefore, one should have some measure of this dispersion.

The GATT study contains data on the frequency distribution of the individual tariff lines. We can construct a comparison of the percentage of tariff lines within various tariff ranges:

DUTIES

All industrial products	Less than 5 percent	5 to 10 percent	10 to 15 percent	15 to 20 percent	Over 20 percent
World.....	42	28	14	9.0	7.0
EEC.....	31	56	11	1.6	.4
United States.....	32	30	14	12.0	12.0
Canada.....	42	13	16	24.0	5.0
Japan.....	18	49	22	7.0	4.0

This reveals that 32 percent of all U.S. tariff lines carry duties of less than 5 percent, 30 percent of the tariff lines have duties between 5 and 10 percent, etc. The United States and Canada have the larger portion of tariff lines in the higher ranges, where tariff protection is more effective. European and Japanese tariff show less variance from their "average" tariffs. This evidence suggests that, although U.S. tariff averages are, on the whole, very close to those of our major partners, the more dispersed American (and Canadian) tariff structure may be more restrictive of trade.

The divergence of tariffs can also be judged from data on the highest and lowest average tariffs (weighted by OECD trade) in each of twelve industrial sectors accounting for 85 percent of OECD non-agricultural imports. These averages, as published in the Report of the President's Commission on International Trade and Investment Policy,⁵ are:

[In percent]

Industrial sector	Highest average	Lowest average	Point spread
Pulp and paper.....	¹ 7.8	² 2.5	5.3
Textiles.....	² 17.7	³ 8.3	9.4
Mineral products.....	² 7.6	³ 3.8	3.8
Ores and metals.....	¹ 6.5	⁴ 4.1	2.4
Coal, petroleum, gas.....	³ 10.8	¹ 9.9	9.9
Chemicals.....	³ 10.0	⁴ 7.4	2.6
Nonelectrical machinery.....	³ 10.9	² 5.6	5.3
Electrical machinery.....	¹ 11.5	² 7.8	3.7
Transport equipment.....	³ 14.0	² 5.0	9.0
Scientific instruments.....	² 16.1	⁵ 8.0	8.1
Footwear.....	⁵ 22.6	¹ 10.4	12.2
Furniture.....	⁵ 17.3	⁴ 8.3	9.0

¹ United Kingdom.

² United States.

³ Japan.

⁴ EEC.

⁵ Canada.

⁵ John C. Renner, "National Restrictions on International Trade," *United States International Economic Policy in an Interdependent World*, Compendium of Papers: Vol. I, p. 665.

Consideration of this spread, in conjunction with data on tariff distribution similar to those we presented, tends to confirm the view expressed by John C. Renner, that "The close grouping of the general average tariff rates of the major industrialized countries disguises considerable differences in the sectoral tariff rates . . . the level of tariffs is higher and the spread is greater than generally supposed."⁶

V. NOMINAL VERSUS EFFECTIVE TARIFFS

The difficulties in interpreting the restrictive impact of tariff levels do not lie solely in the computation of appropriate averages. A real measure of the effective protection afforded national industries by tariffs should take account of the difference between tariffs on imports used in the manufacture of finished products, and tariffs on finished products. Domestic industries utilize raw materials, and semi-manufactures, in the production of finished manufactures. Some of those raw materials and semi-manufactures are imported. Tariffs on these imports increase the cost of production for domestic industry, and thus influence their competitiveness with foreign industries. Tariffs on imports may operate to offset the nominal protection afforded by tariffs on finished manufactures. Effective protection could be considerably reduced.

In practice, however, tariffs on raw materials are usually much lower than tariffs on finished manufactures. In this case, "effective" protection is greatly enhanced. To understand the difference between "effective" and "nominal" tariff rates one must understand just what is being protected. A tariff on a finished manufacture is protection for the "value added" in the process of transforming imported raw (or semimanufactured) inputs into finished outputs.

An example can clarify the explanation. Assume a simple case in which a domestic industry imports all the materials it uses in the manufacturing process. These imports are duty-free, but there is a 10 percent tariff on the finished product. Assume the competitive world price of the materials required to manufacture one unit of output is \$50. Assume the competitive world price of the finished good is \$100. Businesses in foreign countries which export the raw materials face a choice: to export the raw materials for \$50, or to manufacture the finished product themselves and export it for \$100. The raw materials will be duty-free, but the finished good will bear a duty of \$10. Assuming that, to compete with the domestic manufacturer, the foreign manufacturer cannot raise the price of his export, his revenue from exporting the finished good will be \$90, compared to a revenue of \$50 from exporting the raw materials. He has earned \$40 from the "value added" by his manufacturing process. But the domestic manufacturer, who bears no tariff on the \$100 price of the final good, earns \$50 from the value added in the domestic manufacturing process. The "effective rate of protection" enjoyed by the domestic manufacturer is the ratio of \$10 to \$50, or 20 percent, not the nominal tariff rate of 10 percent. The "effective rate of protection" can be defined as "the maximum proportion by which the value added per unit of output by primary resources employed in the domestic industry can exceed

⁶ *Ibid.*

the value added per unit of output by primary resources employed in the foreign competitive industry."⁷

This example illustrates the theory of effective rates in the simplest form. In practice the calculation of effective rates can be very difficult. It requires accurate data on the value added in the manufacturing process, and on the proportions of various material inputs into the manufacturing process.

Despite these difficulties, a meaningful comparison of tariff levels, with the purpose of judging the relative degrees of protection they afford manufacturing industries, should be based on effective, not nominal, tariff rates. This is particularly true when the question concerns preferential treatment to less-developed countries. The nominal tariff rates on finished goods in which they might be able to develop an export competitiveness may appear deceptively low, while the effective rate which provides the real barrier against their exports is nonetheless prohibitive.

We have not been able to uncover any recent attempts to calculate effective tariff rates. The most recent figures at our disposal are calculations of nominal and effective rates in 1962. Though these obviously have no validity today, we include a few examples solely to illustrate the degree of divergence possible between nominal and effective rates;

NOMINAL AND EFFECTIVE TARIFF RATES, 1962

Commodity	U.S.		EEC		Japan	
	Nominal	Effective	Nominal	Effective	Nominal	Effective
Textile fabrics.....	24.1	50.6	17.6	44.4	19.7	48.8
Clothing.....	25.1	35.9	18.5	25.1	25.2	42.4
Metal manufactures.....	14.4	28.5	14.0	25.6	18.1	27.7
Automobiles.....	6.8	5.1	19.5	36.8	35.9	75.7

THE 1962 OVERALL WEIGHTED TARIFF AVERAGES

Country	Nominal	Effective
United States.....	11.6	20.0
United Kingdom.....	15.5	27.8
EEC.....	11.9	18.6
Japan.....	16.2	29.5

Source: Bela Belassa, "Tariff Protection in Industrial Countries: An Evaluation," *Journal of Political Economy* (December 1965).

⁷ Giorgio Basevi, "The United States Tariff Structure: Estimates of Effective Rates of Protection of United States Industries and Industrial Labor," *The Review of Economics and Statistics* (May 1966).

VALUE OF U.S. IMPORTS FOR CONSUMPTION, DUTIES COLLECTED, AND RATIO OF DUTIES TO VALUES, UNDER THE
TARIFF ACT OF 1930, 1930-72

[Dollar amounts in thousands]

Year	Imports for consumption					Duties collected ¹		
	Free		Dutiable		Total	Ratio to values		
	Amount	Percent of total	Amount	Percent of total		Amount	Dutiable imports (percent)	Free and dutiable imports (percent)
1930 (June 18-Dec. 31).....	\$979, 016	69. 5	\$429, 063	30. 5	\$1, 408, 079	\$192, 528	44. 9	13. 8
1931.....	1, 391, 639	66. 6	696, 762	33. 4	2, 088, 455	370, 771	53. 2	17. 7
1932.....	885, 536	66. 8	439, 557	33. 2	1, 325, 093	259, 600	59. 1	19. 6
1933.....	903, 547	63. 1	529, 466	36. 9	1, 433, 013	283, 681	53. 6	19. 8
1934.....	991, 161	60. 6	644, 842	39. 4	1, 636, 003	301, 168	46. 7	18. 4
1935.....	1, 205, 987	59. 1	832, 918	40. 9	2, 038, 905	357, 241	42. 9	17. 8
1936.....	1, 384, 937	57. 1	1, 039, 040	42. 9	2, 423, 977	408, 127	39. 3	16. 5
1937.....	1, 765, 248	58. 6	1, 244, 604	41. 4	3, 009, 852	470, 509	37. 8	15. 5
1938.....	1, 182, 696	60. 7	766, 928	39. 3	1, 949, 624	301, 375	39. 3	15. 9
1939.....	1, 397, 280	61. 4	878, 819	38. 6	2, 276, 099	328, 034	37. 3	14. 4
1940.....	1, 648, 965	64. 9	891, 691	35. 1	2, 540, 656	317, 711	35. 6	12. 5
1941.....	2, 030, 919	63. 0	1, 191, 035	37. 0	3, 221, 954	437, 751	36. 8	13. 6
1942.....	1, 767, 592	63. 8	1, 001, 693	36. 2	2, 769, 285	320, 117	32. 1	11. 6
1943.....	2, 192, 702	64. 7	1, 197, 249	35. 3	3, 389, 951	392, 294	32. 8	11. 6
1944.....	2, 717, 986	69. 9	1, 169, 504	30. 1	3, 887, 409	382, 109	32. 7	9. 8
1945.....	2, 749, 345	67. 1	1, 348, 756	32. 9	4, 098, 101	391, 476	29. 0	9. 6
1946.....	2, 934, 955	60. 8	1, 889, 946	39. 2	4, 824, 902	498, 001	26. 4	10. 3
1947.....	3, 454, 647	61. 0	2, 211, 674	39. 0	5, 666, 321	445, 355	20. 1	7. 9
1948.....	4, 174, 523	58. 9	2, 917, 509	41. 1	7, 092, 032	417, 401	14. 3	5. 9
1949.....	3, 883, 186	58. 9	2, 708, 454	41. 1	6, 591, 640	374, 291	13. 8	5. 7
1950.....	4, 756, 778	54. 5	3, 976, 304	45. 5	8, 743, 082	529, 621	13. 3	6. 1
1951.....	5, 993, 442	55. 4	4, 823, 900	44. 6	10, 817, 341	603, 468	12. 5	5. 6
1952.....	6, 256, 950	58. 2	4, 490, 546	41. 8	10, 747, 497	574, 733	12. 8	5. 3
1953.....	5, 919, 501	54. 9	4, 859, 403	45. 1	10, 778, 905	597, 760	12. 3	5. 5
1954.....	5, 667, 904	55. 4	4, 571, 613	44. 6	10, 239, 517	556, 939	12. 2	5. 4
1955.....	6, 036, 634	53. 2	5, 300, 153	46. 8	11, 336, 787	669, 579	12. 6	5. 9
1956.....	6, 234, 514	49. 8	6, 281, 233	50. 2	12, 515, 747	739, 228	11. 8	5. 9
1957.....	6, 036, 400	46. 6	6, 914, 206	53. 4	12, 950, 606	776, 884	11. 2	6. 0
1958.....	5, 341, 561	41. 9	7, 397, 868	58. 1	12, 739, 429	832, 155	11. 2	6. 5
1959.....	5, 821, 729	38. 8	9, 165, 346	61. 2	14, 987, 075	1, 056, 536	11. 6	7. 1
1960.....	6, 142, 076	40. 9	8, 871, 834	59. 1	15, 013, 910	1, 086, 115	12. 2	7. 2
1961.....	5, 922, 298	40. 4	8, 734, 599	59. 6	14, 656, 897	1, 052, 702	12. 1	7. 2
1962.....	6, 224, 850	38. 3	10, 026, 213	61. 7	16, 251, 063	1, 234, 921	12. 3	7. 6
1963.....	6, 265, 096	36. 8	10, 739, 791	63. 2	17, 004, 887	1, 262, 156	11. 8	7. 4
1964.....	7, 045, 056	37. 8	11, 568, 138	62. 2	18, 613, 193	1, 371, 265	11. 9	7. 4
1965.....	7, 434, 414	34. 9	13, 847, 409	35. 1	21, 281, 823	1, 622, 920	11. 7	7. 6
1966.....	9, 343, 899	36. 8	15, 022, 695	63. 2	25, 366, 594	1, 920, 755	12. 0	7. 6
1967.....	10, 203, 477	38. 2	16, 528, 817	61. 8	26, 732, 294	2, 016, 421	12. 2	7. 5
1968.....	12, 266, 825	37. 2	20, 724, 900	62. 8	32, 991, 725	2, 341, 058	11. 3	7. 1
1969.....	13, 061, 617	36. 4	22, 808, 742	63. 6	35, 870, 359	2, 551, 174	11. 2	7. 1
1970.....	13, 877, 262	34. 9	25, 890, 412	65. 1	39, 767, 674	2, 584, 092	10. 0	6. 5
1971.....	15, 309, 317	33. 6	30, 263, 575	66. 4	45, 545, 892	2, 767, 980	9. 2	6. 1
1972.....	18, 911, 798	34. 2	36, 370, 512	65. 8	55, 282, 310	3, 123, 673	8. 6	5. 6

¹ Calculated.

Note: The ratio of duties collected to the value of imports (sometimes referred to as the "average ad valorem equivalent") should be used with great reservation as a measure of the "height" of a country's tariff or of the tariff's restrictiveness of imports. Such a ratio for the schedule of duties as a whole (or even a ratio for most individual tariff categories) is heavily weighted by imports that enter either free of duty or at low unrestrictive rates; it is weighted less by imports that enter at high restrictive rates and not at all by imports that are precluded from entry. Moreover, an upward or downward trend in the "ratio" of duties collected may reflect alterations in the rates of duty applied, changes in the composition of imports from year to year, or changes in the prices of imported commodities.

Source: U.S. Tariff Commission, March 1973.

VALUE OF U.S. IMPORTS FOR CONSUMPTION, DUTIES COLLECTED, AND RATIO OF DUTIES TO VALUES, UNDER SPECIFIED TARIFF ACTS, 1891-1930

[Dollar amounts in thousands]

Fiscal years 1891-1918; calendar years 1919 and succeeding years	Free		Dutiable		Total	Ratio to values		
	Amount	Percent of total	Amount	Percent of total		Dutiable imports (percent)	Free and dutiable imports (percent)	
McKINLEY LAW								
Effective Oct. 6, 1890:								
1891.....	\$379,028	44.8	\$466,455	55.2	\$845,483	\$215,791	46.3	25.5
1892.....	448,771	55.8	355,527	44.2	804,298	173,098	48.7	21.6
1893.....	432,405	51.9	400,283	48.1	832,733	198,373	49.6	23.8
1894.....	372,462	59.1	257,646	40.9	630,108	128,882	50.0	20.6
Annual average— McKinley law.....	408,178	52.4	369,978	47.6	778,155	179,036	48.4	23.0
WILSON LAW								
Effective Aug. 28, 1894:								
1895.....	376,890	51.6	354,272	48.4	731,162	147,901	41.8	20.2
1896.....	368,898	48.6	390,797	51.4	759,694	156,105	40.0	20.6
1897.....	381,902	48.4	407,349	51.6	789,251	171,779	42.2	21.8
Annual average, Wilson law.....	375,897	49.4	384,139	50.6	760,036	158,595	41.3	20.9
DINGLEY LAW								
Effective July 24, 1897:								
1898.....	291,534	49.6	295,620	50.4	587,154	144,259	48.8	24.6
1899.....	299,669	43.7	385,773	56.3	685,442	200,873	52.1	29.3
1900.....	366,760	44.2	463,759	55.8	830,519	228,365	49.2	27.6
1901.....	339,093	42.0	468,670	58.0	807,763	232,641	49.6	28.9
1902.....	396,542	44.0	503,252	56.0	899,794	250,550	49.8	28.0
1903.....	437,291	43.4	570,669	56.6	1,007,960	279,780	49.0	27.8
1904.....	454,153	46.3	527,669	53.7	981,823	257,331	48.8	26.3
1905.....	517,073	47.6	570,045	52.4	1,087,118	257,898	45.2	23.8
1906.....	548,696	45.2	664,722	54.8	1,213,418	293,558	44.2	24.2
1907.....	641,953	45.5	773,449	54.6	1,415,402	329,122	42.6	23.3
1908.....	525,705	44.4	657,416	55.6	1,183,121	282,273	42.9	23.9
1909.....	599,376	46.8	682,266	53.2	1,281,642	294,377	43.2	23.0
Annual average, Dingley law.....	451,487	45.2	546,942	54.8	998,430	254,252	46.5	25.5
PAYNE-ALDRICH LAW								
Effective Aug. 6, 1909:								
1910.....	761,353	49.2	785,756	50.8	1,547,109	326,562	41.6	21.1
1911.....	776,964	50.8	750,981	49.2	1,527,945	309,966	41.3	20.3
1912.....	881,513	53.7	759,210	46.3	1,640,723	304,899	40.2	18.6
1913.....	986,972	55.9	779,717	44.1	1,766,689	312,510	40.1	17.7
Annual average, Payne-Aldrich law.....	851,701	52.6	768,916	47.4	1,620,617	313,484	40.8	19.3
UNDERWOOD LAW								
Effective Oct. 4, 1913:								
1914.....	1,152,393	60.4	754,008	39.6	1,906,400	283,719	37.6	14.9
1915.....	1,032,863	62.7	615,523	37.3	1,648,386	205,747	33.4	12.5
1916.....	1,495,881	68.6	683,153	31.4	2,179,035	209,726	30.7	9.6
1917.....	1,852,531	69.5	814,689	30.5	2,667,220	221,659	27.2	8.3
1918.....	2,117,555	73.9	747,339	26.1	2,864,894	180,590	24.2	6.3
1918 (July- December).....	1,149,882	79.1	303,079	20.9	1,452,961	73,854	24.4	5.1
1919.....	2,711,462	70.8	1,116,221	29.2	3,827,683	237,457	21.3	6.2
1920.....	3,115,958	61.1	1,985,865	38.9	5,101,823	325,646	15.4	6.4
1921.....	1,564,278	61.2	992,591	38.8	2,556,869	292,397	29.4	11.4
1922.....	1,888,240	61.4	1,185,533	38.6	3,073,773	451,356	38.1	14.7
Annual average, Underwood law.....	1,903,268	66.3	968,211	33.7	2,871,479	261,279	27.0	9.1

See footnotes at end of table.

VALUE OF U.S. IMPORTS FOR CONSUMPTION, DUTIES COLLECTED, AND RATIO OF DUTIES TO VALUES, UNDER
SPECIFIED TARIFF ACTS, 1891-1930—Continued

[Dollar amounts in thousands]

Fiscal years 1891-1918; calendar years 1919 and succeeding years	Free		Dutiable		Total	Ratio to values		
	Amount	Percent of total	Amount	Percent of total		Amount	Dutiable imports (percent)	Free and dutiable imports (percent)
FORDNEY-McCUMBER LAW								
Effective Sept. 22, 1922:								
1923-----	\$2, 165, 148	58.0	\$1, 566, 621	42.0	\$3, 731, 769	\$566, 664	36.2	15.2
1924-----	2, 118, 168	59.2	1, 456, 943	40.8	3, 575, 111	532, 286	36.5	14.9
1925-----	2, 708, 828	64.9	1, 467, 390	35.1	4, 176, 218	551, 814	37.6	13.2
1926-----	2, 908, 107	66.0	1, 499, 969	34.0	4, 408, 076	590, 045	39.3	13.4
1927-----	2, 680, 059	64.4	1, 483, 031	35.6	4, 163, 090	574, 839	38.8	13.8
1928-----	2, 678, 633	65.7	1, 399, 304	34.3	4, 077, 937	542, 270	38.8	13.8
1929-----	2, 880, 128	66.4	1, 458, 444	33.6	4, 338, 572	584, 837	40.1	13.5
1930 (Jan. 1-June 17) -	1, 102, 107	64.6	603, 891	35.4	1, 705, 998	269, 357	44.6	15.8
Annual average, Fordney- McCumber law----	2, 565, 490	63.8	1, 458, 080	36.2	4, 023, 570	561, 615	38.5	14.0

¹ The Emergency Tariff Act became effective on certain agricultural products on May 28, 1921, and continued in effect until Sept. 22, 1922.

Note: The ratio of duties collected to the value of imports (sometimes referred to as the "average ad valorem equivalent") should be used with great reservation as a measure of the "height" of a country's tariff or of the tariff's restrictiveness of imports. Such a ratio for the schedule of duties as a whole (or even a ratio for most individual tariff categories) is heavily weighted by imports that enter either free of duty or at low unrestrictive rates; it is weighted less by imports that enter at high restrictive rates and not at all by imports that are precluded from entry. Moreover, an upward or downward trend in the "ratio" of duties collected may reflect alternations in the rates of duty applied, changes in the composition of imports from year to year, or changes in the prices of imported commodities.

Source: U.S. Tariff Commission.